# Oesophageal Dysmotility and Oesophageal Spasm

Patient Information

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This leaflet provides information about oesophageal dysmotility and oesophageal spasm, conditions that can sometimes cause swallowing difficulties and other symptoms. As you are visiting our ENT (Ear, Nose, and Throat) clinic with swallow-related issues, it's important to explore all potential causes, including these conditions, especially as reflux (heartburn) can sometimes be linked to them.

# Overview

Your oesophagus is the muscular tube that carries food and liquids from your mouth down to your stomach. After you swallow, the muscles in your oesophagus normally contract in a coordinated, wave-like motion called **peristalsis**. This pushes food and drink downwards.

**Oesophageal dysmotility** is a general term that means the muscles of your oesophagus aren't working as they should. The contractions might be irregular, uncoordinated, too weak, or too strong. This can disrupt the normal movement of food and liquids.

**Oesophageal spasm** is a specific type of oesophageal dysmotility where the muscles in your oesophagus contract suddenly and powerfully in an uncoordinated way. These spasms can be painful and can interfere with swallowing.



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Think of it like a busy road. Normally, traffic (food) flows smoothly. In dysmotility, there might be unexpected traffic jams, slow-moving vehicles, or sudden bursts of speed. In spasm, it's like a sudden, complete blockage.

While reflux (where stomach acid comes back up into the oesophagus) is a common cause of swallow problems and can sometimes mimic or contribute to these conditions, oesophageal dysmotility and spasm involve the muscles of the oesophagus themselves not working correctly.

#### Symptoms and Causes

The symptoms can vary from person to person and can range from mild to severe. They may come and go. Common symptoms include:

- **Difficulty swallowing (dysphagia):** This is a main symptom and can feel like food is getting stuck in your throat or chest. It might occur with solids, liquids, or both.
- **Chest pain:** This pain can be quite intense and may feel like a squeezing, tightening, or heavy pressure behind your breastbone. Sometimes, it can radiate to your neck, jaw, arms, or back, which can sometimes be mistaken for heart problems. **Al Image Prompt:** An illustration showing a person clutching their chest with an arrow pointing to the oesophagus area to indicate chest pain.
- **Regurgitation:** Food or liquid may come back up into your mouth, sometimes undigested.

- **Heartburn:** A burning sensation in your chest, which is also a common symptom of reflux, can sometimes occur with oesophageal issues.
- A feeling of something being stuck in your throat.
- Coughing or choking, especially after eating or when lying down.
- Bad breath or an unpleasant taste in your mouth.
- Persistent need to clear your throat.
- Discomfort when eating.
- Weight loss (if swallowing becomes significantly difficult).

#### What causes oesophageal dysmotility and spasm?

The exact causes of these conditions are not always clear, but several factors are thought to play a role:

- Nerve problems: The nerves that control the muscles of the oesophagus might not be working correctly. This could be due to damage or dysfunction in these nerves.
- **Muscle problems:** The muscles themselves might have abnormalities in how they contract and relax.
- Reflux (Gastro-Oesophageal Reflux Disease -GORD): While reflux is often a separate issue, chronic acid exposure in the oesophagus can sometimes irritate the lining and potentially affect muscle function over time, possibly contributing to dysmotility in some individuals.
- **Certain medications:** Some medications, such as opioids used for long periods, have been linked to an increased risk of oesophageal spasms.
- Stress and anxiety: In some people, stress or anxiety can trigger or worsen oesophageal spasm symptoms.
- Extreme temperatures of food or drink: Very hot or very cold food and drinks can sometimes trigger spasms in susceptible individuals.



#### **Diagnosis and Investigations**

If you are experiencing swallow problems or chest pain, especially if you also have a history of reflux, your ENT specialist will take a detailed history of your symptoms and perform a physical examination. To understand what's happening in your oesophagus, they may recommend one or more of the following tests:

- Barium Swallow: You will be asked to drink a liquid containing barium (a chalky substance). X-rays will then be taken as the barium moves down your oesophagus. This can help to see the shape and movement of your oesophagus and identify any blockages or structural problems.
  Upper Endoscopy (Gastroscopy): A thin, flexible tube with a camera attached (an endoscope) is gently passed down your throat into your oesophagus, stomach, and the first part of your small intestine. This allows the doctor to directly visualise the lining of these areas and look for any inflammation, narrowing, or other abnormalities. Small tissue samples (biopsies) can also be taken if needed to check for inflammation or other conditions, including those related to reflux.
- **Oesophageal Manometry:** This is a key test to diagnose oesophageal dysmotility and spasm specifically. A thin, pressure-sensitive tube is passed through your nose or mouth into your oesophagus. As you swallow small amounts of water, the tube measures the pressure and pattern of muscle contractions in different parts of your oesophagus. This test can show if the contractions are too weak, too strong, uncoordinated, or absent.
- Functional Lumen Imaging Probe (FLIP): This is a newer test that can also assess the function of the oesophagus. A probe with a balloon at the end is inserted into the oesophagus. When the

balloon is inflated, it measures the pressure and diameter of the oesophagus at different points, providing information about its ability to stretch and contract.

- **pH Monitoring:** If reflux is suspected to be playing a role in your symptoms, even alongside potential dysmotility, a pH monitoring study might be recommended. This involves placing a small catheter (thin tube) or a wireless capsule in your oesophagus to measure the amount of acid that comes up from your stomach over a period of 24 hours or more. This can help determine if you have excessive acid reflux.
- Electrocardiogram (ECG): If your main symptom is chest pain, your doctor may order an ECG to rule out any heart-related problems before focusing on oesophageal causes.

Based on your symptoms and the results of these tests, your doctor will be able to determine if you have oesophageal dysmotility or spasm and the specific type.

# **Management and Treatment**

The goal of treatment for oesophageal dysmotility and spasm is to relieve your symptoms, especially difficulty swallowing and chest pain, and improve your quality of life. The approach will depend on the specific type of dysmotility or spasm you have and the severity of your symptoms.

# General Lifestyle and Dietary Measures (Often Helpful, Especially with Reflux):

These measures can often help manage symptoms, particularly if reflux is a contributing factor:

- **Eat smaller, more frequent meals:** This can reduce the amount of food in your stomach and potentially lessen reflux and pressure on the oesophagus.
- Eat slowly and chew your food thoroughly: This makes it easier for your oesophagus to move food down.
- Avoid trigger foods and drinks: Common triggers for reflux and sometimes oesophageal symptoms include fatty foods, spicy foods, chocolate, caffeine (found in coffee, tea, and some fizzy drinks), alcohol, citrus fruits and juices, and tomatoes. Keeping a food diary can help you identify your personal triggers.
- Avoid eating late at night: Allow at least 2-3 hours between your last meal and going to bed.
- Elevate the head of your bed: Raising the head of your bed by 6-8 inches can help to prevent stomach acid from flowing back into your oesophagus at night. You can do this by using blocks under the legs at the head of the bed or a wedge pillow.
- Stay upright after eating: Avoid lying down for at least 30 minutes to an hour after meals.
- Maintain a healthy weight: Excess weight can increase pressure on your stomach and contribute to reflux.
- **Stop smoking:** Smoking can weaken the muscle between your oesophagus and stomach, making reflux worse.

#### Medications

Several types of medications may be used to manage oesophageal dysmotility and spasm symptoms. It's important to discuss these with your doctor to determine the most appropriate options for you.

- **Proton Pump Inhibitors (PPIs):** These medications reduce the amount of acid produced by your stomach. They are primarily used to treat reflux (heartburn) and can help if reflux is contributing to your oesophageal symptoms or if you have co-existing GORD.
  - Examples of PPIs available in the UK include:
    - **Omeprazole:** Available over-the-counter (OTC) in lower strengths for short-term relief of heartburn and indigestion. Higher strengths require a prescription. Typically taken once a day, usually in the morning, before food.
    - Lansoprazole: Available by prescription. Typically taken once a day, usually in the morning, before food.

- **Pantoprazole:** Available by prescription. Typically taken once or twice a day, before food.
- **Esomeprazole:** Available by prescription. Typically taken once or twice a day, before food.
- H2 Receptor Antagonists (H2 Blockers): These medications also reduce stomach acid production, although generally less effectively than PPIs. They can be helpful for milder reflux symptoms or taken as needed.
  - Examples of H2 blockers available in the UK include:
    - Ranitidine: Now generally only available by prescription due to safety concerns. Dosage varies depending on the condition being treated.
    - **Famotidine:** Available OTC in lower strengths for short-term relief of heartburn and indigestion. Higher strengths require a prescription. Typically taken once or twice a day.
- **Antacids:** These medications neutralise stomach acid and can provide quick, short-term relief from heartburn. They are available OTC.
  - $\circ$   $\;$  Examples of antacids available in the UK include:
    - Gaviscon (Double Action Liquid): Contains sodium alginate, sodium bicarbonate, and calcium carbonate. Forms a raft on top of stomach contents to prevent reflux. Available OTC. Taken after meals and at bedtime.
    - Rennie: Contains calcium carbonate and magnesium carbonate. Neutralises stomach acid. Available OTC. Taken when needed for heartburn or indigestion.
    - Milk of Magnesia: Contains magnesium hydroxide. Neutralises stomach acid and can also have a laxative effect. Available OTC. Dosage varies.
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- **Calcium Channel Blockers:** These medications are primarily used to treat high blood pressure and heart conditions, but they can also help to relax the smooth muscles in the oesophagus and may reduce the frequency and severity of oesophageal spasms. They are available by prescription.
  - Examples of calcium channel blockers that might be used include **Nifedipine** and **Diltiazem**. Dosage and timing will be determined by your doctor.
- Nitrates: These medications can also relax the smooth muscles in the oesophagus and may be used to relieve oesophageal spasm pain. They are usually taken as needed when symptoms occur and are available by prescription (e.g., Isosorbide Dinitrate, Glyceryl Trinitrate spray).
- **Muscle Relaxants:** In some cases, medications that help relax muscles more generally might be prescribed. Examples include **Hyoscine Butylbromide (Buscopan)**, which is available OTC for abdominal cramps but can sometimes help with oesophageal spasms, and other prescription muscle relaxants.
- **Peppermint Oil:** Some research suggests that peppermint oil may help relax the smooth muscles of the oesophagus and relieve minor spasm symptoms. This can be taken by adding a few drops to water. However, it's important to discuss this with your doctor before trying it, especially if you also have significant reflux, as it can sometimes worsen reflux symptoms in some individuals.

# More Invasive Treatments:

If medications and lifestyle changes are not effective in controlling your symptoms, your doctor may consider more invasive treatments:

- **Botulinum Toxin (Botox) Injection:** Botox can be injected into the lower oesophageal sphincter (the muscle at the bottom of the oesophagus that opens to allow food into the stomach) during an upper endoscopy. This can help to relax the muscle and reduce spasms. The effects are temporary, usually lasting for several months, and repeat injections may be needed.
- **Oesophageal Dilatation:** If there is a narrowing (stricture) in your oesophagus, which can sometimes occur due to chronic reflux or other conditions, a procedure called dilatation can be

performed during an endoscopy. A special balloon is passed into the narrowed area and inflated to gently stretch it open.

• **Surgery (Myotomy):** In severe cases of oesophageal spasm that are not relieved by other treatments, surgery called a myotomy may be considered. This involves making a cut in the muscle of the lower oesophagus to weaken the contractions. This is usually done laparoscopically (keyhole surgery).

The choice of treatment will depend on your individual situation, the severity of your symptoms, and the results of your investigations. Your doctor will discuss the risks and benefits of each option with you. Prevention

Unfortunately, there is no guaranteed way to prevent oesophageal dysmotility or spasm from developing in the first place. However, identifying and avoiding your personal triggers (such as certain foods or drinks, stress) may help to reduce the frequency or severity of your symptoms. Managing reflux effectively can also be important, as chronic inflammation from acid exposure might play a role in some cases.

# Outlook / Prognosis

The outlook for people with oesophageal dysmotility and spasm varies depending on the specific condition and the severity of symptoms.

- **Oesophageal Spasms:** While the symptoms can be distressing and sometimes painful, oesophageal spasms are not considered life-threatening and do not increase your risk of oesophageal cancer. Many people experience infrequent or mild symptoms that can be managed with lifestyle changes and medication. For those with more severe symptoms, treatments like Botox injections, surgery, or POEM can often provide significant relief.
- **Oesophageal Dysmotility (General):** The prognosis depends on the underlying cause and the specific type of dysmotility. Some forms may be relatively stable, while others can be progressive. Treatment can often help to manage symptoms and improve quality of life.

It's important to have regular follow-up appointments with your doctor to monitor your symptoms and adjust your treatment plan as needed. While these conditions can sometimes cause worry, most people can find effective ways to manage their symptoms and maintain a good quality of life.

# When to Seek Medical Advice:

It's important to contact your GP or ENT specialist if you experience:

- New or worsening difficulty swallowing.
- Frequent or severe chest pain.
- Unexplained weight loss.
- Food regularly getting stuck.
- Symptoms that are interfering with your daily life.

#### Seek immediate medical attention (call 999 in the UK) if you experience:

• Severe chest pain that feels like a crushing or heavy pressure, especially if it is accompanied by shortness of breath, sweating, or pain radiating to your arm, jaw, or neck, as this could be a sign of a heart attack.